UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,856	07/15/2003	Stefan Dessloch	SVL920020048US1/3793P	9144

45728　　　7590　　　12/29/2008		EXAMINER
IBM ST-SVL		COLAN, GIOVANNA B
SAWYER LAW GROUP LLP		

ART UNIT	PAPER NUMBER
2162	

2465 E. Bayshore Road, Suite No. 406
PALO ALTO, CA 94303

NOTIFICATION DATE	DELIVERY MODE
12/29/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@sawyerlawgroup.com

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 September 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-9,11,12,15,18-23,25,26 and 46-50* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-9,11,12,15,18-23,25,26 and 46-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *06/24/2008*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

1.   This action is issued in response to applicant filed request for continued

examination (RCE) on 09/18/2008.

2.   Claims 1, 15, and 46 have been amended. No claims were added. Claims 2 – 3,

10, 13 – 14, 16 – 17, 24, and 27 – 45 were canceled.

3.   Claims 1, 4 – 9, 11 – 12, 15, 18 – 23, 25 – 26, and 46 – 50 are pending in this

application.

4.   This action is made final

5.   Applicant's arguments filed 09/18/2008 have been fully considered but they are

not persuasive.

Continued Examination Under 37 CFR 1.114

6.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

10/11/2006 has been entered.

Response to Amendment

7.   The amendment filed 09/18/2008 is objected to under 35 U.S.C. 132(a) because

it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no

amendment shall introduce new matter into the disclosure of the invention. The added

material which is not supported by the original disclosure is as follows: "...so that the

code corresponding to the present invention can be stored and executed in a

decentralized manner...".

    Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 101

8.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

9.   Claims 1, 4 – 9, 11 – 12, and 46 – 50 are rejected under 35 U.S.C. 101 because

the claimed invention is directed to non-statutory subject matter.

    Claims 1 and 46 fails to be limited to embodiments which fall within a statutory

category. Specifically, the claims recite "computer-readable medium ..." (Applicant's

specification recites defines it as: carrier waves, page 7, amended specification) which

does not appear to be a process, machine, manufacture, or composition of matter. See,

e.g., In re Nuitjen, Docket no. 2006-1371 (Fed. Cir. Sept. 20, 2007)(slip. op. at 18)("A

transitory, propagating signal like Nuitjen's is not a process, machine, manufacture, or

composition of matter.' … Thus, such a signal cannot be patentable subject matter.").

Claim Rejections - 35 USC § 103

10.	The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.	This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

12.	Claims 1, 4-9, 11-12, 15, 18-23, 25-26, and 46-50 are rejected under 35

U.S.C. 103(a) as being unpatentable over Graham Spencer (Spencer hereinafter) (US

5,577,241) in view of Witkowski et al. (hereinafter Witkowski) (US Patent No. 6,775,662

B1).

Regarding Claims 1, 15, and 46, Spencer discloses a computer readable

medium encoded with a computer program for representing a query statement having

an atomic query element and a combined query element related by a combined

operator, the atomic query element being a noniterative query element, the combined

query element including a left subelement and a right subelement, the computer

program comprising computer executable instructions for:

defining an abstract superclass, wherein an instance of the abstract super class

represents the query element ([57], Abstract, "…The query architecture is based on an

abstract base class of query nodes, or code objects that retrieve records from the

database. Specific subclasses for particular query models are derived from the base

class. Each query node class includes a search function that iteratively searches the

database for matching records….", Spencer) and includes an operation on a

combination of the combined operator, the query element, and the combined query

element (Col. 3, lines 23 – 37, Spencer).

Spencer also discloses: defining a first subclass of the abstract subclass,

wherein an instance of the first subclass represents a query element (Col. 3, lines 50 –

57, Spencer). However, Spencer does not explicitly disclose that such instance of the

first subclass represents the atomic query element. On the other hand, Witkowski

discloses that: an instance of the first subclass represents the atomic query element

(Fig. 5, item 521, Col. 11, lines 2 – 5, Witkowski). It would have been obvious to one of

ordinary skill in the art at the time the invention was made to incorporate the

Witkowski's teachings to the system of Spencer. Skilled artisan would have been

motivated to do so, as suggested by Witkowski (Col. 4 – 5, 66-67 and 1 – 9;

respectively, Witkowski), to conserve resources that would otherwise be wasted by

generating rows that could not possibly satisfy the criteria.

Furthermore, the combination of Spencer in view of Witkowski discloses:

defining a second subclass of the abstract superclass, wherein an instance of the

second subclass represents the combined query element including the left subelement

and the right subelement (Fig. 2, item 201.X and 203.X, Col. 6, lines 16 – 22, Spencer),

and wherein each of the left subelement (Fig. 5, item 524, Col. 11, lines 1 – 5,

Witkowski[1]) and right subelement are representable by an instance of the first subclass

or the second subclass of the abstract super class (Fig. 5, item 514, Col. 11, lines 7 – 9,

Witkowski[2]);

indicating a relationship between the first subclass and the second subclass

defined by the combined operator (Col. 4, lines 58 – 64, Spencer; and Col. 12, lines 32

– 36, Witkowski);

means for receiving the query statement (Fig. 1, item 110, Col. 6, lines 29 – 32,

Witkowski) having the atomic query element (Col. 10, line 34, **a>3**, Witkowski) and the

---

[1] Wherein **"gc = 1"** corresponds to the left subelement claimed.
[2] Wherein **"gc = 1 AND d>0"** corresponds to the right subelement claimed.

combined query element associated by the combined operator (Col. 10, line 34, **gc=1**

OR (gc=0 AND d>0) OR (c=0 and d<0), Witkowski);

means for populating the structure respectively with instances of the abstract

superclass ([57], Abstract, Spencer), the first subclass (Col. 3, lines 50 – 57, Spencer),

and the second subclass that represent the received query statement (Fig. 2, item

201.X and 203.X, Col. 6, lines 16 – 22, Spencer; and Fig. 4, items 410, 420, and 430,

and 440, Col. 10, lines 57 – 58, Witkowski);

means responsive to selection of a given instance populated within the structure,

for retrieving query elements represented by the given instance (Col. 3, lines 21 – 37,

Col. 4, lines 44 – 53, Spencer; and Fig.5, Col. 12, lines 8 – 9, Witkowski); and,

means for building a query statement from the retrieved query elements (Col. 4,

lines 58 – 64, Spencer; and Fig.5, Col. 12, lines 8 – 9, Witkowski).

Regarding Claims 4, 18, and 47, the combination of Spencer in view of Witkowski

discloses a computer readable medium, wherein:

the instance of the abstract superclass represents a table reference (Col. 11,

lines 38 – 46, Witkowski);

the instance of the first class represents an unjoined table (Fig. 5, item 521, Col.

10 and 11, lines 60 – 62 and 2 – 4; respectively, Witkowski); and

the instance of the second class represents a joined table (Fig. 5, item 513, Col.

10, lines 34 – 35, joined by operator "OR", Witkowski).

Regarding Claims 5, 19, and 48, the combination of Spencer in view of Witkowski discloses a computer readable medium, wherein:

the instance of the abstract superclass represents a value expression ([57], Abstract, Spencer Fig. 5, item 511, Col. 11, lines 11 – 13, Witkowski[3]);

the instance of the first subclass represents an atomic value expression (Col. 3, lines 50 – 57, Spencer; and Fig. 5, item 521, Col. 10 and 11, lines 60 – 61 and 2 – 5; respectively, Witkowski); and

the instance of the second subclass comprises a combined value expression (Fig. 2, item 201.X and 203.X, Col. 6, lines 16 – 22, Spencer; and Fig. 5, item 513, Col. 11, lines 7 – 9, Witkowski[4]).

Regarding Claims 6, 20, and 49, the combination of Spencer in view of Witkowski discloses a computer readable medium, wherein:

the instance of the abstract superclass represents a search condition ([57], Abstract, Spencer; and Fig. 5, item 511, Col. 11, lines 11 – 13, Witkowski[5]);

---

[3] Witkowski discloses root node 511 that references the value expression of : **"where (a>3 AND (b<1 OR b=0) AND (gc=1 OR (gc=0 AND d>0) OR (c=0 and d<0))"** (Col 10, lines 33 – 35, Witkowski).
[4] Witkowski (Fig. 5) discloses a parent node (item 513), which corresponds to the second subclass, and nchild nodes (items 524, 514, 515, 525, 526, 527, and 528), which correspond to a combined value expression (Col. 12, lines 21 – 23, **"gc=1 OR (gc=0 AND d>0) OR (c=0 and d<0)"**, Witkowski).
[5] Witkowski discloses root node 511 that references the value expression of : **"where (a>3 AND (b<1 OR b=0) AND (gc=1 OR (gc=0 AND d>0) OR (c=0 and d<0))"** (Col 10, lines 33 – 35, Witkowski).

the instance of the first subclass represents an atomic search condition (Col. 3,

lines 50 – 57, Spencer; and Fig. 5, item 521, Col. 10 and 11, lines 60 – 61 and 2 – 5;

respectively, Witkowski); and

the instance of the second subclass represents a combined search condition

(Fig. 2, item 201.X and 203.X, Col. 6, lines 16 – 22, Spencer; and Fig. 5, item 513, Col.

11, lines 7 – 9, Witkowski[6]).

Regarding Claims 7, 21, and 50, the combination of Spencer in view of Witkowski

discloses a computer readable medium, wherein:

the instance of the abstract superclass represents a group-by query element

([57], Abstract, Spencer; and Col. 6, lines 38 – 40, Witkowski);

the instance of the first subclass represents a group (Col. 3, lines 50 – 57,

Spencer; and Col. 11, lines 16 – 17, Witkowski); and

the instance of the second subclass represents a grouping set (Fig. 2, item 201.X

and 203.X, Col. 6, lines 16 – 22, Spencer; and Col.11, lines 34 – 37, Witkowski).

Regarding Claims 8 and 22, the combination of Spencer in view of Witkowski

discloses a structure, wherein the combined query element comprises a nested query

language element (Fig. 5, item 514, 525, and 526, Col. 10, lines 33 – 35, element 514

---

[6] Witkowski (Fig. 5) discloses a parent node (item 513), which corresponds to the second subclass, and nchild nodes (items 524, 514, 515, 525, 526, 527, and 528), which correspond to a combined value expression (Col. 12, lines 21 – 23, **"gc=1 OR (gc=0 AND d>0) OR (c=0 and d<0)"**, Witkowski).

comprising: **"(gc=0 AND d>0)"** is nested over element 513 comprising: **"(gc=1 OR**

(gc=0 AND d>0) OR (c=0 and d<0)", Witkowski).

Regarding Claims 9 and 23, the combination of Spencer in view of Witkowski

discloses a structure, wherein the combined query element comprises an iterative query

language element (Col. 11, lines 26 – 27, Witkowski[7]).

Regarding Claims 11 and 25, the combination of Spencer in view of Witkowski

discloses a structure, wherein the means for receiving the query statement includes

means for receiving the query statement from a user-interface (Col. 4, lines 43 – 47,

Spencer; and Fig. 6, item 618, Col. 13, lines 64 – 67, Witkowski).

Regarding Claims 12 and 26, the combination of Spencer in view of Witkowski

discloses a structure, wherein the means for receiving the query statement includes

means for receiving the query statement from an application interface (Col. 4, lines 43 –

47, Spencer; and Fig. 6, item 618, Col. 13, lines 64 – 67, Witkowski).

---

[7] Witkowski discloses a method for recursively creating parent nodes (item 513 in Fig. 5 is a parent node
and also corresponds to the second subclass in the superclass). This method, utilizing recursion, involves
repetition, recurrence, and/or iteration. In addition, Witkowski also discloses a method for processing

Response to Arguments

13.   Applicant cannot show non-obviousness by attacking references individually

where, as here, the rejections are based on a combination of references.

In re Keller, 208 USPQ 871 (CCPA 1981).

14.   Applicant argues that the applied art fails to disclose; "an atomic query element,

nor abstract superclass, nor other elements of the present invention".

        Examiner respectfully disagrees. The combination of Spencer in view of

Witkowski does disclose: a structure that includes an abstract superclass, in which an

instance of the abstract super class represents a query statement ([57], Abstract,

"...The query architecture is based **on an abstract base class of query nodes**, or

code objects that retrieve records from the database. Specific subclasses for particular

query models are derived from the base class. Each query node class includes a

search function that iteratively searches the database for matching records....",

Spencer) having an atomic query element (Col. 3, lines 50 – 57, examiner makes note

that this is a 103 rejection combination of references, wherein Spencer teaches:

"having a query element..." Spencer; and Fig. 5, item 521, a>3, Col. 10, line 34, and 60

-67, "...a query is a node graph with leaf nodes and parent nodes. **Leaf nodes have**

no branches extending from them, parent nodes have branches extending to child

nodes. A child node may be a leaf node or another parent node..." , and **Col. 11, lines**

2 – 5, "Predicate tree 501 includes leaf nodes 521, ...", since leaf node 521 a>3

---

conjunctions, which would later be used in the predicate query tree of Fig. 5, including an iterative loop

does not further divide into branches/trees, examiner interprets leaf node 521 as the

atomic query element as claimed, Witkowski) and a combined query element related

by a combined operator (Col. 3, lines 23 – 37, Spencer; and Fig. 5, items 524, 513,

514, 525, 526, 515, 527, and 528, Col. 10, line 34, gc=1 OR (gc=0 AND d>0) OR (c=0

and d<0), Witkowski).

15.   In response to applicant's arguments, the recitation "A method for hierarchically

representing a query statement having an atomic query element and a combined query

element related by a combined operator" has not been given patentable weight because

the recitation occurs in the preamble. A preamble is generally not accorded any

patentable weight where it merely recites the purpose of a process or the intended use

of a structure, and where the body of the claim does not depend on the preamble for

completeness but, instead, the process steps or structural limitations are able to stand

alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*,

187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

16.   Applicant argues that; "Clearly, as is evident from the above cited portions, the

references are insufficient in view of the rejection as neither Spencer nor Witkowski,

alone or in combination, disclose populating the structure with instances of the abstract

superclass; populating the structure with instances of the first subclass, and populating

---

(Col. 8, lines 37 – 38).

the structure with instances of the second subclass; that represent the received query

statement, as in the present invention".

Examiner respectfully disagrees. The combination of Spencer in view of

Witkowski does disclose: populating the structure respectively with instances of the

abstract superclass ([57], Abstract, Spencer), the first subclass (Col. 3, lines 50 – 57,

Spencer), and the second subclass that represent the received query statement (Fig. 2,

item 201.X and 203.X, Col. 6, lines 16 – 22, Spencer; and Fig. 4, items 410, 420, and

430, and 440, Col. 10, lines 57 – 58, Witkowski).

17.   Applicant argues that; "Neither Spencer nor Witkowski, alone or in combination,

disclose the present invention and the feature of: "retrieving query elements

represented by a given instance in response to a selection of the given instance

populated within the structure; and building a query statement from the retrieved query

elements".

Examiner respectfully disagrees. The combination of Spencer in view of

Witkowski does disclose: responsive to selection of a given instance populated within

the structure, for retrieving query elements represented by the given instance (Col. 3,

lines 21 – 37, Col. 4, lines 44 – 53, Spencer; and Fig.5, Col. 12, lines 8 – 9, Witkowski);

and, building a query statement from the retrieved query elements (Col. 4, lines 58 – 64,

Spencer; and Fig.5, Col. 12, lines 8 – 9, Witkowski).

Conclusion

18.   This is a request for continue examination of applicant's earlier Application No.

10/620,856. All claims are drawn to the same invention claimed in the earlier

application and could have been finally rejected on the grounds and art of record in the

next Office action if they had been entered in the earlier application. Accordingly, **THIS**

ACTION IS MADE FINAL even though it is a first action in this case. See MPEP

§ 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no, however, event will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Points Of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GIOVANNA COLAN whose telephone number is (571)272-2752. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Giovanna Colan
Examiner
Art Unit 2162
November 4, 2008

/John Breene/
Supervisory Patent Examiner, Art Unit 2162